CLAIMS

1. An inorganic powder having a frequency-size distribution with multiple peaks, wherein the peaks are present at least in the particle size regions from 0.2 to 2 μm and from 2 to 63 μm.

2. The inorganic powder as claimed in claim 1, wherein the maximum particle size is 63 μm or less, the average particle size is from 4 to 30 μm, and the mode size is from 2 to 35 μm.

3. The inorganic powder as claimed in claim 1, wherein the percentage of particles having a particle size of less than 2 μm is from 0 to 20 mass% and the mode size of particles having a particle size of less than 2 μm is from 0.25 to 1.5 μm.

4. The inorganic powder as claimed in claim 1, wherein the percentage of particles having a particle size of 8 μm or more is from 44 to 90 mass%.

5. The inorganic powder as claimed in claim 1, wherein the percentage of particles having a particle size of from 2 to 8 μm is from 0 to 15 mass%.

6. The inorganic powder as claimed in claim 1, wherein the percentage of particles having a particle size of from 2 to 8 μm is from 32 to 45 mass%.

7. The inorganic powder as claimed in claim 1, wherein the spheroidicity is from 0.68 to 0.95 and the spheroidization ratio is from 0.63 to 0.95.

8. The inorganic powder as claimed in claim 1, wherein the spheroidicity of particles having a particle size of less than 2 μm is from 0.5 to 0.95 and the spheroidization ratio thereof is from 0 to 0.9.

9. The inorganic powder as claimed in claim 1, wherein the spheroidicity of particles having a particle size of 8 μm or more is from 0.7 to 0.95 and the spheroidization ratio thereof is from 0.7 to 0.95.

10. The inorganic powder as claimed in claim 1, wherein the thermal conductivity of the inorganic powder in the single crystal state is 30 W/m·K or more.

11. The inorganic powder as claimed in any one of claims 1 to 10, which is an alumina powder.

12. The inorganic powder as claimed in claim 11, wherein the α alumina crystal phase fraction of the alumina powder is from 30 to 75 mass%.

13. The inorganic powder as claimed in claim 11, wherein the α alumina crystal phase fraction of the particle of less than 2 μm is from 90 to 100 mass%.

14. The inorganic powder as claimed in claim 11, wherein the α alumina crystal phase fraction of the particle of 8 μm or more is from 30 to 70 mass%.

15. The inorganic powder as claimed in claim 1, wherein the content of metal aluminum is 0.05 mass% or less.

16. The inorganic powder as claimed in claim 1, wherein the content of sulfate ion is 15 ppm or less.

17. The inorganic powder as claimed in claim 1, wherein the content of chlorine ion is 15 ppm or less.

18. The inorganic powder as claimed in claim 1, wherein the content of Fe_2O_3 is 0.03 mass% or less.

19. The inorganic powder as claimed in claim 1, which contains substantially no particles of less than 50 nm.

20. The inorganic powder as claimed in claim 1, which is subjected to surface-hydrophobing treatment with at least one surface-treating agent selected from silane-based coupling agent and titanate-based coupling agent.

21. A resin composition filled with the inorganic powder described in any one of claims 1 to 20.

22. The resin composition as claimed in claim 21, wherein from 50 to 90 mass% of the inorganic powder is filled.

23. The resin composition as claimed in claim 21 or 22, wherein when the resin composition is formed into a thin-film insulating resin composition with a thickness of 40 to 90 μm, the dielectric breakdown strength as measured by a dielectric

breakdown voltage test prescribed in JIS C2110 is 39 kV/mm or more.

24. A circuit board for mounting on automobiles, using the resin composition described in any one of claims 21 to 23.

25. A circuit board for mounting on electronic devices, using the resin composition described in any one of claims 21 to 23.

26. A high thermally conductive member for installation in electronic devices, using the resin composition described in any one of claims 21 to 23.

27. A high thermally conductive member for electronic components, using the resin composition described in any one of claims 21 to 23.

28. The high thermally conductive member as claimed in claim 26 or 27, which is in a sheet form.

29. The high thermally conductive member as claimed in claim 26 or 27, which is in a form of gel or paste.

30. The high thermally conductive member as claimed in claim 26 or 27, which is underfill-agent type member.

31. The high thermally conductive member as claimed in claim 26 or 27, which is applied by coating onto a heating portion of an elemental device.

32. A metal-based circuit board, a metal core-type circuit board and a structure body thereof, wherein the resin composition described in any one of claims 21 to 23 is used as a high thermally conductive member serving also as an insulating adhesive layer or the like.

33. A structure body of a high thermally conductive metal member-integrated electronic component, wherein a heat generating electronic component and a high thermally conductive metal member are bonded by using the high thermally conductive member described in any one of claims 26 to 31.

34. An LED circuit board using the high thermally conductive member described in any one of claims 26 to 31.

35. An automobile using the circuit board claimed in claim 32 or 34 or the structure body claimed in claim 32 or 33.

36. An electronic product using the circuit board claimed in claim 32 or 34 or the structure body claimed in claim 32 or 33.

37. A light indicator using the circuit board claimed in claim 32 or 34 or the structure body claimed in claim 32 or 33.

38. A display device using the circuit board claimed in claim 32 or 34 or the structure body claimed in claim 32 or 33.